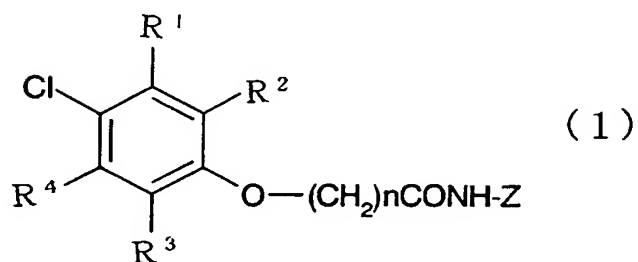


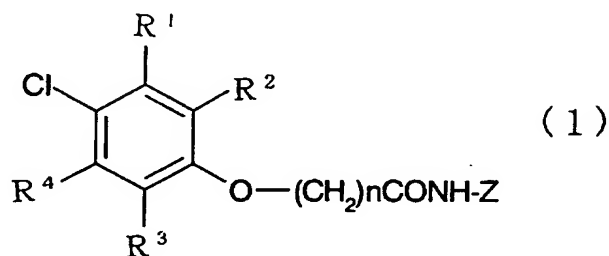
CLAIMS

1. A compound of formula (1)



- 5 wherein R^1 , R^2 , R^3 and R^4 may be the same or different and represent chlorine or hydrogen, n is an integer from 1 to 10, and Z represents an amino acid residue or peptide.

2. An immunoassay standard for dioxins comprising a compound of formula (1)



- 10 wherein R^1 , R^2 , R^3 and R^4 may be the same or different and represent chlorine or hydrogen, n is an integer from 1 to 10, and Z represents an amino acid residue or peptide.

3. An immunoassay kit for dioxins comprising
15 the compound of claim 1.

4. A kit according to claim 3, further comprising an anti-dioxins antibody.

5. A kit according to claim 3 or 4, further comprising a competitive antigen.

6. An immunoassay method for quantitative determination of dioxins, the method using the compound of claim 1 as a standard.

7. An immunoassay method according to claim 6 selected from the group consisting of enzyme immunoassay, radioactive immunoassay and fluoroimmunoassay.

8. An immunoassay method for determining the dioxins concentration of a sample and calculating the TEQ, the method using the compound of claim 1 as a standard.

9. An immunoassay method according to claim 8 selected from the group consisting of enzyme immunoassay, radioactive immunoassay and fluoroimmunoassay.

10. An immunoassay method for dioxins comprising the following steps:
(1) reacting a sample with an anti-dioxin antibody to determine the amount of antigen reacted with the antibody; and
(2) comparing the amount of antigen reacted with the antibody in step (1) with that determined by allowing a known concentration of the compound of claim 1 to react with the anti-dioxin antibody to compute the dioxins concentration in the sample.

11. An immunoassay method according to claim 10

wherein the amount of antigen reacted with the antibody is determined by a method selected from enzyme immunoassay, radioactive immunoassay and fluoroimmunoassay.